ARCADIS
Infrastructure, environment, buildings

ARCADIS
10559 Citation Drive
Suite 100
Brighton
Michigan 48116
Tel 810.229.8594
Fax 810.229.8837
www.arcadis-us.com

Mr. James Saric
Remedial Project Manager
USEPA Region 5
77 West Jackson Boulevard (SR-6J)
Chicago, IL 60604-3507

Subject:
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies Monthly Progress Report
Area 1 – Morrow Dam to Plainwell Dam (July 2009)

SEDIMENTS

Date:
August 14, 2009

Contact:
Michael J. Erickson, P.E.

Phone:
810.225.1924

Email:
michael.erickson@
arcadis-us.com

Our ref:
B0064539.0000.00014
#2

Dear Jim:

Attached is the 29th monthly progress report for the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site Supplemental Remedial Investigation/ Feasibility Study (SRI/FS) – Area 1. This progress report is submitted as per Paragraph 37 of the February 2007 Administrative Settlement Agreement and Order on Consent (AOC) for Remedial Investigations/Feasibility Studies (Docket No. V-W-07-C-864), as well as Section 7.1 of the associated Statement of Work (SOW). If you have any questions, please do not hesitate to contact me.

Sincerely,

ARCADIS

Michael J. Erickson, P.E.
Associate Vice President

Copies:
Michael Berkoff, USEPA
Sam Chummar, USEPA
Michael Ribordy, USEPA
Paul Bucholtz, MDEQ (with Attachment A)
Jeff Keiser, CH2M HILL (with Attachment A)
Todd Goeks, NOAA (with Attachment A)
Richard Gay, Weyerhaeuser Company
Martin Lebo, Weyerhaeuser Company
Kathy Huibregtse, RMT Inc. (with Attachment A)
J. Michael Davis, Esq., Georgia-Pacific LLC
Garry Griffith, P.E., Georgia-Pacific LLC
Paul Montney, P.E., Georgia-Pacific LLC
L. Chase Fortenberry, P.G., Georgia-Pacific LLC

MONTHLY PROGRESS REPORT FOR THE ALLIED PAPER, INC./PORTAGE CREEK/ KALAMAZOO RIVER SUPERFUND SITE SRI/FS AREA 1 (MORROW DAM TO PLAINWELL DAM)

REPORT #29, JULY 2009

PREPARED BY ARCADIS
AUGUST 17, 2009

ON BEHALF OF THE KALAMAZOO RIVER STUDY GROUP (KRSG)

SUBMITTED TO

JAMES SARIC, REMEDIAL PROJECT MANAGER
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA)

Monthly Progress Report for the Allied Paper, Inc./Portage Creek/ Kalamazoo River Superfund Site SRI/FS – Area 1

REPORT #29, JULY 2009

Significant Developments and Activities during the Period, Including Actions Undertaken Pursuant to the AOC and SOW

- On July 6, USEPA forwarded to Georgia-Pacific LLC (Georgia-Pacific) approval of the Georgia-Pacific Mill Source Investigation Report stating that USEPA does not consider the Kalamazoo and Former Hawthorne Mill Properties part of the Site. The letter is dated June 30. This report is discussed in Section 2.2.1.1 of the SOW.

- On July 9, USEPA forwarded to ARCADIS a response to the letter requesting USEPA's data usability determination for existing data for purposes of the SRI/FS, which was submitted to USEPA on August 27, 2007. These data are described in Section 1.1.2 of the SOW.

- On July 9, USEPA provided ARCADIS with a set of figures prepared by CDM regarding Total Maximum PCB concentrations in the river sediment.

- On July 13, ARCADIS forwarded to USEPA a draft land use assessment overview. This assessment is discussed in Section 2.4 of the SOW.

- On July 14, ARCADIS forwarded to USEPA the results of the 2008 yearling smallmouth bass sampling at the Otsego City Impoundment. This sampling is discussed in Section 3.4.5 of the Area 1 SRI/FS Work Plan.

- On July 14, ARCADIS submitted the draft *Hot Spot Assessment Plan* to USEPA. This assessment is Phase 3 of the sampling effort for the reaches in Area 1 from the Former Georgia-Pacific Mill Lagoons to Crown Vantage Landfill (Section 3.4.1.1 of the Area 1 SRI/FS Work Plan).

- On July 28, ARCADIS and USEPA discussed in person in Kalamazoo the draft *Hot Spot Assessment Plan*.

- On July 28, ARCADIS forwarded to USEPA a table that compares the inputs for the Area 1 Risk Assessment Work Plan and CDM's Baseline Ecological Risk Assessment.

- On July 30, Georgia-Pacific, ARCADIS, USEPA, and other stakeholders met to discuss the Area 1 Risk Assessment Work Plan. ARCADIS distributed a draft agenda and attendee list on July 27.

- On July 30, Georgia-Pacific, ARCADIS, and MDEQ met to discuss the long-term monitoring program for the Site. Georgia-Pacific distributed a draft agenda on July 28. The long-term monitoring program is discussed in Section 1.1.1.1 of the SOW.

- On July 31, USEPA forwarded to ARCADIS examples of receptor foraging range units for discussion purposes in developing exposure units for the Area 1 ecological risk assessment.

- Georgia-Pacific awaits USEPA's comments on the Multi-Area FS document described in Section 1.2.2 of the SOW (Preliminary Remedial Technology Screening [Section 1.2.2.1]) and the *Candidate Technologies and Testing Needs Technical Memorandum* (described in Section 4.1 of the SOW), which were submitted to USEPA on February 22, 2008.

- Georgia-Pacific awaits USEPA comments on the draft Area 1 Risk Assessment Work Plan and the revised draft *Multi-Area FS Technical Memorandum - Preliminary Permitting/Equivalency Requirements* (Section 1.2.2.3 of the SOW), which was submitted for USEPA approval following revisions based on USEPA and MDEQ comments.

Data Collected and Field Activities Conducted during the Period

- On July 7 through 9, ARCADIS collected soil and sediment samples in the Crown Vantage landfill area (Table A), which is described in Section 3.4.3 of the Area 1 SRI/FS Work Plan.

- On July 8 and 9, ARCADIS processed the Crown Vantage samples and forwarded the samples to TestAmerica Laboratories, Inc. (TestAmerica) for PCB, TOC, and grain size analysis (Table B).

- On July 9, ARCADIS collected sediment samples for the focused step-out sampling activity (Table C), which is described in Section 3.4.4 of the Area 1 SRI/FS Work Plan.

- On July 13, ARCADIS processed the focused step-out samples and forwarded the samples to TestAmerica for PCB, TOC, and grain size analysis (Table D).

- On July 14 through 16, ARCADIS collected bathymetric monitoring data in the former Plainwell Impoundment (Table E). This work is discussed in Section 3.4.5 of the Area 1 SRI/FS Work Plan.

- On July 16, ARCADIS re-installed staff gage #2 (SG-2) in the Plainwell Time-Critical Removal Action (TCRA) Area.

- On July 24, ARCADIS released selected sediment samples for PCB analyses from the Lake Allegan (Area 6) cores collected in May 2009 (Table F). TestAmerica will analyze for PCBs and percent solids. The remaining PCB samples are still being retained in frozen storage at TestAmerica pending results of the radionuclide analysis.

- During the week of July 27, USEPA FIELDS collected bathymetric data for the hot spot assessment areas.

Monthly Progress Report for the Allied Paper, Inc./Portage Creek/ Kalamazoo River Superfund Site SRI/FS – Area 1

REPORT #29, JULY 2009

Laboratory Data Received during the Period

- On July 3, 16, and 24, ARCADIS received the results for sample delivery groups (SDGs) Pb0174, Pb0175, and Pb0179 (respectively) from Mass Spec Services for the radionuclide analyses (Table G) on samples collected from Lake Allegan. ARCADIS awaits the results for the remaining samples. In addition, cores are being retained in frozen storage at the ARCADIS field office in Kalamazoo.

- On July 22, ARCADIS received the results for the second round of groundwater and surface water samples collected in the Plainwell TCRA Area during the week of June 29 (SDG KAL462) (Table H). These samples were collected in accordance with Section 3.4.6 of the Area 1 SRI/FS Work Plan.

- On July 31, ARCADIS received a portion of the results for the Crown Vantage samples collected in July (SDGs KAL463 and KAL466) (Table I).

- ARCADIS awaits analytical results from TestAmerica for the remainder of the Crown Vantage soil and sediment samples, the focused step-out sediment samples, and selected sediment samples from Lake Allegan. ARCADIS also awaits the remainder of the radionuclide results from Mass Spec Services for the Lake Allegan samples.

- Validated data for the SDGs received in May from TestAmerica are included in this monthly report. These data include the first round of groundwater and surface water samples collected in the Plainwell TCRA area (SDG KAL459) (Table J). These samples were collected in accordance with Section 3.4.6 of the Area 1 SRI/FS Work Plan. In accordance with Section 2.1 of the SOW, paper and electronic copies of these laboratory data are included as part of the monthly progress reports. Attachment A contains the validation reports for these data packages. The enclosed CD also contains the electronic data deliverable for these data.

Problems

- None.

Actions Taken to Correct Problems

- None.

Developments Anticipated during the Next Two Reporting Periods

- In August, ARCADIS will continue to review the radionuclide analytical results from the Lake Allegan sediment cores. Select samples retained in frozen storage at TestAmerica are scheduled to be analyzed for PCBs based on those results.

Monthly Progress Report for the Allied Paper, Inc./Portage Creek/ Kalamazoo River Superfund Site SRI/FS – Area 1

REPORT #29, JULY 2009

- In August, ARCADIS is scheduled to survey the re-installed staff gage #2 (SG-2) in the Plainwell TCRA Area.

- In August, ARCADIS expects to either schedule a working meeting to further discuss the Area 1 Risk Assessment Work Plan or receive comments from USEPA on the document.

- On August 10, CDM is scheduled to transmit to ARCADIS the split sample PCB results collected during the Plainwell TCRA groundwater monitoring event in June/July 2009.

- On August 13, the Area 1 proposed off-channel areas sampling approach (based on the June 11 presentation) is scheduled to be submitted to USEPA.

- On August 17, ARCADIS is scheduled to submit to USEPA the Semi-Annual Progress Report for the period from February through July 2009. This submittal is discussed in Section 7.2 of the SOW.

- Validated data for the SDGs received in June from TestAmerica will be included in the August monthly report. These data include the results for SDG Pb0173 from Mass Spec Services for the radionuclide analyses on sediment samples collected from Lake Allegan (Area 6).

- On September 8, ARCADIS is scheduled to begin monitoring the groundwater and surface water elevations twice a week to confirm groundwater flow towards the river in the Plainwell TCRA Area for the quarterly sampling. This sampling is discussed in Section 3.4.6 of the Area 1 SRI/FS Work Plan.

- In August or September, ARCADIS expects to receive the bathymetric data for the hot spot assessment area collected by USEPA FIELDS during the week of July 27, 2009, and complete a sampling plan to collect sediment core samples for the *Hot Spot Assessment Plan*.

- In August or September, ARCADIS expects to complete a sampling plan to collect the 20 agency-directed sediment core samples in Area 1. These cores are discussed in Section 3.4.1.1 of the Area 1 SRI/FS Work Plan.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Monthly Report #29, July 2009

Table A — Crown Vantage Landfill — Sediment and Soil Cores Collected in July 2009

Date Collected	Location	Matrix	Water Depth (ft)	Penetration (ft)	Recovery (ft)	Notes	Interval (in)	Description
7/7/2009	CVS-01	Soil	-	2.6	1.4	Observed gray clay like material within liner tube - strata change below	0 - 6	Brown, Fine to Medium Sand, Fine Gravel, Trace Organics (Wood and Roots), Dry
							6 - 12	Light Brown, Fine to Medium Sand, Fine Gravel, Dry
							12 - 14	Same As Above
							14 - 16	Dark Brown, Fine to Medium Sand, Trace Organics (Roots), Brown Rock Fragments, Trace Slag, Dry, Core Expanded to 22" upon Cutting
							16 - 22	Brown Fine to Medium Sand, Trace Slag, Fine Gravel (Broken Fragments), Trace Organics (Roots), Dry
	CVS-02	Soil	-	3	2.1	-	0 - 5	Brown Fine to Medium Sand, Fine Gravel, Trace Organics (Roots and Wood), Dry
							5 - 19	Brown Well Graded Sand, Slag Throughout, Fine Gravel, Degrading Wood at 5-8", Dry
							19 - 25	Dark Gray to Black, Silty Fine Sand, Trace Organics (Root Fragments), Moist
	CVS-03	Soil	-	3	1.9	-	0 - 6	Gray Brown Silty Clay, Trace Organics (Rootlets), Trace Fine Gravel, Dry
							6 - 12	Brown Fine to Medium Sand, Slag Material, Trace Fine Gravel, Well Graded Sand, Dry
							12 - 19	Light Brown, Fine to Medium Sand, Slag Material, Trace Glass at 12", Orange to Brown (Grading), Dry
							19 - 23	Dark Gray to Black, Silty Clay, Little Fine Sand, Trace Organic Wood, Moist
	CVS-04	Soil	-	3	1.1	Oversight indicated this core would be best for sampling based on greater recovery	0 - 6	Dark Brown Silty Clay, Trace Organics (Roots Dead Leaves)
				3	0.8	Sample collected from additional core, Agency agrees to similar strata and can use for QA/QC	6 - 12	Brown Grading to Gray Brown, Silty Clay, Trace Organics (Roots), Silty Sand Near 4-12" and Moist
	CVS-05	Soil	-	2.6	0.9	-	0 - 9	Dark Brown, Silty Clay, Trace Organics (Roots and Wood), Moist
				3	0.9	Oversight indicated 2 attempts in this area was sufficient due to comp./less recovery	9 - 12	Dark Brown, Silty Sand, Trace Organics (Roots), Moist, Light Gray Seams at 10"

See Note on Page 4.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Monthly Report #29, July 2009

Table A — Crown Vantage Landfill — Sediment and Soil Cores Collected in July 2009

Date Collected	Location	Matrix	Water Depth (ft)	Penetration (ft)	Recovery (ft)	Notes	Interval (in)	Description
7/7/2009 (Cont.)	CVS-06	Soil	-	3	1.8	Revised location at the request of oversight representatives	0 - 12	Dark Brown Sandy Clay, Trace Organics (Root Fragments), Moist
							12 - 15	Dark Brown, Sandy Clay, Trace Fine Gravel, Gray Clay-like material observed at 12.5" approximately 1/8" thick lens, moist
							15 - 22	Brown, Sandy Clay, Trace Organics (Shells)
7/8/2009	CVS-07	Soil	-	3	2.2		0 - 12	Dark Brown Silty Clay Grading Silty Sand, Trace Organics (Wood and Roots)
							12 - 26	Brown Silty Sand Grading to Fine Gravel, Trace Coarse Sand, Moist
	CVS-08	Soil	-	3	2.3		0 - 16	Dark Gray Brown, Silty Clay with Little Sand, Trace Organics (Roots), Grading to Dark Gray Brown
							16 - 24	Dark Gray Brown, Silty Gray Sand
							24 - 28	Dark Gray Brown, Fine Sand Silt
	CVS-09	Soil	-	3	1.8		0 - 6	Light Brown Medium Sand Grading to Sandy Clay, Light Gray, Fine Gravel, Trace Organics (Roots)
							6 - 12	Gray Brown Fine Sand, Trace Slag, Fine Gravel, Little Clay
							12 - 21	Gray Fine Sand, Some Slag, Trace Wood, Roots, Orange Fine Sand Seam at 15" ~ 1" Thick, Little Clay
	CVS-10	Soil	-	3	2.1		0 - 9	Dark Gray Brown, Sandy Clay, Fine to Medium Sand, Trace Organics (Rootlets/Wood), Fine to Medium Gravel, Trace Slag, Moist
							9 - 11	Black Organics (Dead Leaves), Moist
							11 - 25	Gray Brown, Silty Sand, White Rock Fragments at 24", Some Slag, Trace Brick, Wet to Moist
	FF-28	Sediment	Dry @ time of sampling	3	2.4	6-12" interval adjusted at request of MDEQ oversight to 6-13" strata. Observed lighter gray color as material was homogenized, it dried out	0 - 6	Gray Black Silty Clay, Trace Organics (Roots and Grass)
							6 - 13	Gray Brown Silty Clay, Trace Sand, Trace Organics (Roots)
							13 - 29	Gray Brown Sand, Trace Fine Gravel, Some Coarse Sand, Trace Organics (13-19"), Roots, Moist
	CVT-06-1	Sediment	Dry @ time of sampling	3.7	2.7		0 - 13	Black Fine Sand, Organics (Leaves), Moist
							13 - 24	Gray Silty Fine Sand, Wet, Strong odor post homogenizing
							24 - 32	Gray Brown, Fine to Medium Sand, Coarse Sand, Slag, Fine to Medium Gravel, Trace Organics (Shells)

See Note on Page 4.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Monthly Report #29, July 2009

Table A — Crown Vantage Landfill — Sediment and Soil Cores Collected in July 2009

Date Collected	Location	Matrix	Water Depth (ft)	Penetration (ft)	Recovery (ft)	Notes	Interval (in)	Description
7/8/2009 (Cont.)	CVT-05-2	Sediment	0.2	3.8	2.75		0 - 6	Gray Brown, Silty Clay, Trace Organics (Wood, Roots, Leaves)
							6 - 11	Gray Brown Grading to Black Fine to Medium Sand, Trace Organics (Roots, Leaves), Trace Silt
							11 - 28	Gray Brown, Silty Sand, Trace Organics (Roots), Wood Fragments at 21"
							28 - 32	Dark Brown to Black, Fine to Medium Sand, Fine to Medium Gravel, Trace Organics (Roots)
	CVT-07-1	Sediment	0.5	3.4	2.4		0 - 8	Black Fine Sand, Trace Organics (Leaves, Roots)
							8 - 17	Black Fine to Medium Sand, Trace Organics (Shells, Wood) Trace Fine Gravel
							17 - 24	Gray Brown, Silty Sand, Trace Organics (Wood), Strong Odor
							24 - 28	Gray Brown, Trace Organics (Leaves), Silty Sand
	CVT-08-5	Sediment	Dry @ time of sampling	4.7	3.3		0 - 8	Black Fine Sand, Trace Organics (Leaves and Roots)
							8 - 12	Gray Brown, Fine Sand, Trace Organics (Roots)
							12 - 35	Brown Fine to Medium Sand, Trace Organics (Twigs, Leaves, Shells), Black Fine to Medium Sand Seams at 33', 1" thick trace organic shells
							35 - 38	Light Gray, Calcareous Fine Gravel, Trace Organics (Wood)
	CVT-04-4	Sediment	2	2	1.7		0 - 13	Brown Grading to Gray Brown, Silty Sand, Coarse Sand, Trace Organics (Wood, Roots, Leaves), Wet
							13 - 17	Gray Brown, Silty Sand, Trace Fine Gravel, Trace Coarse Sand, Trace Organics (Roots)
							17 - 19	Gray Brown, Silty Sand, Trace Fine to Medium Sand, Trace Fine Gravel, Trace Coarse Sand, Trace Shells
7/9/2009	CVT-01-2	Sediment	1.9	3.9	3.9		0 - 17	Dark Brown Fine Sand, Trace Organics (Roots and Leaves) Trace Fine Gravel, Moist
							17 - 25	Gray Brown, Well Sorted, Fine Gravel, Fine to Coarse Sand, Trace Organics (Shells)
							25 - 46	Gray Brown, Fine to Medium Sands, Trace Organics (Wood and Shells), Silty Sand Seam at 43-44"

See Note on Page 4.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Monthly Report #29, July 2009

Table A — Crown Vantage Landfill — Sediment and Soil Cores Collected in July 2009

Date Collected	Location	Matrix	Water Depth (ft)	Penetration (ft)	Recovery (ft)	Notes	Interval (in)	Description
7/9/2009 (Cont.)	CVT-02-1	Sediment	1.5	1.7	1.7		0 - 2	Black, Organic (Leaves and Twigs) Trace Fine Sand
							2 - 12	Black Silty Sands, Trace Organics (Shells), Strong Odor 6-
							12 - 17	Gray Brown Fine Sand, Trace Organics (Wood and Shells), Black Fine to Medium Sand at 14 1/8"
							17 - 20	Gray Brown, Fine to Coarse Sand, Fine to Medium Gravel, Trace Organics (Shells)
7/9/2009 (Cont.)	CVT-03-1	Sediment	1	1.6	1.6		0 - 2	Black Trace Sands, Trace Silt, Organics (Roots, Leaves)
							2 - 12	Black Silty Sand, Trace Organics (Shells), Strong Odor
							12 - 18	Black/Brown Fine Sand Grading to Trace Fine Gravel, Trace Organics (Roots)

Note:
All CVS cores and FF-28 collected using a macrocorer, and all CVT cores collected using 3" Lexan.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Monthly Report #29, July 2009

Table B — Crown Vantage Landfill — Sediment and Soil Samples Sent for Analysis in July 2009

Date Processed	Location	Sample ID	Interval (in)	Matrix
7/8/2009	CVS-01	K26440	0-6	Soil
		K26441	6-12	Soil
		K26442	12-16	Soil
	CVS-02	K26443	0-6	Soil
		K26444	6-12	Soil
		K26445	12-19	Soil
		K26446	19-25	Soil
	CVS-03	K26447	0-6	Soil
		K26448	6-12	Soil
		K26449	12-19	Soil
		K26450	19-23	Soil
	CVS-04	K26451 [K26452]	0-6	Soil
		K26453[1]	6-13	Soil
	CVS-05	K26454	0-6	Soil
		K26455	6-12	Soil
	CVS-06	K26456	0-6	Soil
		K26457	6-12	Soil
		K26458	12-15	Soil
		K26459	15-22	Soil
	CVS-07	K26460	0-6	Soil
		K26461	6-12	Soil
		K26462	12-26	Soil
7/9/2009	CVS-08	K26463	0-6	Soil
		K26464	6-12	Soil
		K26465	12-24	Soil
		K26466	24-28	Soil
	CVS-09	K26467	0-6	Soil
		K26468	6-12	Soil
		K26469	12-21	Soil
	CVS-10	K26470	0-6	Soil
		K26471 [K26472]	6-12	Soil
		K26473[1]	12-25	Soil
	FF-28	K56299	0-6	Sediment
		K56300 [K56301]	6-13	Sediment
		K56302[1]	13-24	Sediment
		K56303	24-29	Sediment
	CVT-06-1	K56304	0-2	Sediment
		K56305	2-6	Sediment
		K56306	6-12	Sediment
		K56307	12-24	Sediment
		K56308	24-32	Sediment
	CVT-05-2	K56309	0-2	Sediment
		K56310	2-6	Sediment
		K56311	6-12	Sediment
		K56312	12-24	Sediment
		K56313	24-32	Sediment

See Notes on Page 2.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Monthly Report #29, July 2009

Table B — Crown Vantage Landfill — Sediment and Soil Samples Sent for Analysis in July 2009

Date Processed	Location	Sample ID	Interval (in)	Matrix
7/9/2009 (Cont.)	CVT-07-1	K56314	0-2	Sediment
		K56315	2-6	Sediment
		K56316	6-12	Sediment
		K56317	12-17	Sediment
		K56318	17-24	Sediment
		K56319	24-28	Sediment
	CVT-08-5	K56320	0-2	Sediment
		K56321	2-6	Sediment
		K56322	6-12	Sediment
		K56323 [K56324]	12-24	Sediment
		K56325[1]	24-35	Sediment
		K56326	35-38	Sediment
	CVT-04-4	K56327	0-2	Sediment
		K56328	2-6	Sediment
		K56329	6-12	Sediment
		K56330	12-16	Sediment
		K56331	16-19	Sediment
	CVT-01-2	K56332	0-2	Sediment
		K56333	2-6	Sediment
		K56334	6-12	Sediment
		K56335	12-17	Sediment
		K56336	17-24	Sediment
		K56337	24-36	Sediment
		K56338	36-46	Sediment
	CVT-02-1	K56339	0-2	Sediment
		K56340	2-6	Sediment
		K56341	6-12	Sediment
		K56342	12-17	Sediment
		K56343	17-20	Sediment
	CVT-03-1	K56344	0-2	Sediment
		K56345	2-6	Sediment
		K56346 [K56347]	6-12	Sediment
		K56348[1]	12-18	Sediment

Notes:
All samples analyzed for PCBs, TOC, and grain size.
[1]MS/MSD performed on this sample.
Duplicate samples are in brackets.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Monthly Report #29, July 2009

Table C — Focused Step-Out Sampling - Crown Vantage Landfill to Plainwell No. 2 Dam — Sediment Cores Collected in July 2009

Location	Water Depth	Penetration (ft)	Recovery (ft)	Notes	Interval (in)	Description
FF-35-10'W	0	2.5	1.8	-	0 - 8	Black Brown, Fine Sand Silt, Organics (Roots, Leaves) and Wood
					8 - 15	Gray Brown, Fine to Medium Sand, Trace Medium Gravel, Organics (Wood), Trace Black Sand Seams
					15 - 19	Brown Fine to Medium Gravel, Silty Sand, Fine to Medium Sand
FF-35-10'S	0.6	1.3	1.25	-	0 - 6	Black Brown Silt with Trace Coarse Sand, Trace Organics (Woods, Leaves, Roots)
					6 - 10	Gray Brown, Silty Sand, Organics (Wood, Shells, Leaves), Trace Medium Gravel
					10 - 15	Brown Fine to Medium Sand, Fine to Medium Gravel, Trace Organics (Shells)
FF-35-20'S	0.4	1.5	1.1	Unable to sample 12-15 interval due to larger gravel, 6-15" interval same material, no strata change, K. Templin (EDI) in agreement with methods	0 - 6	Dark Brown Silt, Heavy Organics (Leaves, Wood, Shells)
					6 - 15	Gray Brown, Well Graded Mix, Fine to Coarse Sand, Fine to Medium Gravel, Trace Organics (Shells), Trace Silt, Sand near 6"
FF-35	0.5	2	1.6	Unable to sample 16-17" interval due to amount of wood/fine gravel mixture within interval, similar strata, K. Templin (EDI) in agreement	0 - 7	Brown Silt, with Trace Fine Sand, Organics (Twigs, Leaves)
					7 - 16	Brown Silt with Trace Very Fine Sand, Trace Organics (Roots and Shells)
					16 - 17	Brown Silt with Trace Sand, Trace Organics (Wood and Roots), Trace Fine Gravel, Moist
FF-35-10'E	0.1	1.7	1.4		0 - 3	Brown Silt with Trace Fine Sand, Trace Organics (Wood), Wet
					3 - 13	Brown Fine Sand, Trace Fine Gravel, Trace Organics (Shells and Wood), Moist
					13 - 16	Brown Fine to Medium Sand, Trace Fine to Medium Gravel, Trace Silt
FF-35-10'N	0.6	1.4	1.4	Actual recovery during processing was 1.2' with a loss of 0.4 to 0.5'. Lack of material present within 12-14 interval to sample	0 - 12	Dark Brown Silt, Trace Fine Sand, Trace Organics (Roots, Leaves)
					12 - 14	Gray Brown Well Graded Mix of Coarse Sand, Fine to Medium Gravel, Calcareous 2" Diameter Clump, Hard, Trace Organics (Shells)
FF-35-20'N	0.7	1.5	1.1		0 - 8	Dark Brown Silt, Trace Fine Sand, Trace Organics (Roots, Leaves, Shell Fragments)
					8 - 13	Dark Brown, Well Graded, Fine to Medium Gravel, Coarse Sands, Trace Calcareous Gravel Clumps

Note:
All cores collected on July 9, 2009 using 3" Lexan.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Monthly Report #29, July 2009

Table D — Focused Step-Out Sampling - Crown Vantage Landfill to Plainwell No. 2 Dam — Sediment Samples Sent for Analysis in July 2009

Location	Sample ID	Interval (in)
FF-35-10'W	K56349	0-2
	K56350	2-6
	K56351	6-12
	K56352	12-16
	K56353	16-19
FF-35-10'S	K56354	0-2
	K56355	2-6
	K56356	6-12
	K56357	12-14.5
FF-35-20'S	K56358	0-2
	K56359	2-6
	K56360[1] [K56361]	6-15
FF-35	K56362	0-2
	K56363	2-6
	K56364	6-12
	K56365	12-17
FF-35-10'E	K56366	0-2
	K56367	2-6
	K56368	6-12
	K56369	12-16
FF-35-10'N	K56370	0-2
	K56371	2-6
	K56372	6-14
FF-35-20'N	K56373	0-2
	K56374	2-6
	K56375	6-8
	K56376	8-13

Notes:
All cores processed on July 13, 2009.
All samples analyzed for PCBs, TOC, and grain size.
[1]MS/MSD performed on this sample.
Duplicate samples are in brackets.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Monthly Report #29, July 2009

Table E — Plainwell TCRA Area — Bathymetric Transects Collected in July 2009 and Surface Sediment Descriptions

Date	Transect	Station	Water Depth (ft)	Probe Depth (ft)	Method	Description
7/14/2009	T10	T10-01	NA	NA	NA	River Run Rock
		T10-02	1.9	0.1	Hand with double nitrile	Fine Gravel/Rock
		T10-03	2.3	0.1	Hand with double nitrile	Fine Gravel/Rock
		T10-04	2.0	0.1	Hand with double nitrile	Fine to Coarse Gravel/Rock
		T10-05	1.9	0.2	Hand with double nitrile	Fine to Medium Gravel/Rock
		T10-06	2.7	0.2	Hand Auger	Gray Brown Fine to Medium Sand/Fine to Medium Gravel/Trace Silt
		T10-07	2.4	0.1	Hand Auger	Fine to Medium Sand/Fine Gravel/Calcareous Broken Rock
		T10-08	2.5	0.3	Hand Auger	Brown Fine Sand/Fine to Medium Gravel
		T10-09	1.7	0.6	Hand Auger	Brown and Black Fine to Medium Sand/Fine to Medium Gravel and Wood
		T10-10	1.2	0.6	Hand Auger	Brown and Black Fine to Medium Sand/Fine to Medium Gravel and Silt
		T10-11	1.0	0.3	Hand Auger	Vegetation, Gray Brown Fine to Medium Sand/Fine to Medium Gravel, Silty
		T10-12	1.1	0.9	Hand Auger	Brown and Black Fine to Medium Sand/Fine to Medium Gravel and Silt
		T10-13	1.2	0.7	Hand Auger	Gray and Black Fine to Medium Gravel/Calcareous Rock
		T10-14	1.4	0.6	Hand Auger	Brown Fine Silt/Silt, Fine to Medium Gravel
		T10-15	NA	NA	NA	River Run Rock
	T09	T09-01	NA	1.0	NA	Point Falls in Restoration Top Soil
		T09-02	NA	1.2	NA	Point Falls in Restoration Top Soil
		T09-03	NA	2.3	Hand Auger	5 feet from Edge of Water/Black Clay Silt Fine to Medium Sand
		T09-04	2.1	0.1	Hand Auger	Rock/Fine to Medium Sand/Fine to Medium Gravel
		T09-05	2.1	0.1	Hand Auger	Brown Fine to Medium Sand/Fine Gravel/Calcareous Brown Rock
		T09-06	2.3	0.1	Hand Auger	Fine to Medium Gravel, Trace Medium Sand
		T09-07	2.3	0.1	Hand Auger	Fine to Medium Gravel, Trace Fine to Medium Sand
		T09-08	2.3	0.1	Hand Auger	Gray to Black Fine Sand/Calcareous Broken Rock Fragments/Fine to Medium Gravel
		T09-09	2.7	0.2	Hand Auger	Fine to Medium Gravel/Trace Fine to Medium Sand
		T09-10	2.9	0.4	Hand Auger	Fine to Medium Gravel
		T09-11	3.8	0.4	Hand Auger	Gray Black Silty Clay, Trace Fine Gravel
		T09-12	3.5	1.0	Hand Auger	Gray Black Silty Clay, Fine to Medium Gravel at Bottom
		T09-13	2.1	1.8	Hand Auger	Gray Black Fine to Medium Sand, Trace Silty Clay, Wood, Leaves, Twigs
		T09-14	0.4	0.6	Hand Auger	Rock/Gray Black Silt, Fine Sand, Wood, Twigs, Leaves
		T09-15	0.0	3.7	Hand Auger	5 feet from Edge of Water/Brown Fine to Medium Sand, Roots, Twigs, Vegetation

See Note on Page 6.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Monthly Report #29, July 2009

Table E — Plainwell TCRA Area — Bathymetric Transects Collected in July 2009 and Surface Sediment Descriptions

Date	Transect	Station	Water Depth (ft)	Probe Depth (ft)	Method	Description
7/15/2009	T08	T08-01	NA	NA	NA	Top of Bank, Restoration Material, High Vegetation
		T08-02	1.7	1.4	Hand with double nitrile	Gray Black Silty Clay
		T08-03	4.0	2.0	Hand with double nitrile	Medium Gravel
		T08-04	3.6	0.0	Hand Auger	No Recovery
		T08-05	1.4	0.6	Hand Auger	Gray Black Silty Clay, Trace Fine Gravel
		T08-06	1.2	0.8	Hand Auger	Gray Black Silty Clay, Trace Fine Gravel
		T08-07	1.9	0.4	Hand Auger	Gray Black Silty Clay, Trace Fine Gravel
		T08-08	1.8	0.6	Hand Auger	Gray Black Silty Clay, Trace Fine Gravel
		T08-09	1.5	0.4	Hand Auger	Gray Black Fine to Medium Gravel, Calcareous Broken Rock Fragments
		T08-10	1.6	0.9	Hand Auger	Gray Black Fine to Medium Gravel, Calcareous Broken Rock Fragments
		T08-11	1.8	0.1	Hand Auger	Gray Black Fine to Medium Gravel, Calcareous Broken Rock Fragments
		T08-12	1.2	0.2	Hand Auger	Gray Black Fine to Medium Gravel, Calcareous Broken Rock Fragments
		T08-13	2.8	0.1	Hand Auger	Gray Black Fine to Medium Gravel, Calcareous Broken Rock Fragments
		T08-14	1.9	0.0	Hand Auger	River Run Rock, Restoration Materials
		T08-15	0.0	0.0	NA	River Run Rock, Restoration Materials
	T07	T07-01	NA	NA	NA	River Run Rock
		T07-02	0.9	1.2	Hand with double nitrile	Gray Black Silty Clay/Trace Organic Roots
		T07-03	1.4	1.0	Hand Auger	Gray Black Silty Clay/Trace Organic Roots
		T07-04	2.0	0.6	Hand Auger	Gray Black Silty Clay/Trace Organic Roots
		T07-05	2.4	0.6	Hand Auger	Gray Black Silty Clay/Trace Organic Roots
		T07-06	3.0	0.0	Hand Auger	Hard Rock Bottom near Mid-Channel/No Recovery
		T07-07	3.0	0.0	Hand Auger	Hard Rock Bottom near Mid-Channel/No Recovery
		T07-08	3.2	0.2	Hand Auger	Hard Rock Bottom near Mid-Channel/No Recovery
		T07-09	1.5	1.5	Hand Auger	Gray Black Silty Clay/Trace Organic Roots/Calcareous Broken Rock Fragments
		T07-10	2.8	0.4	Hand Auger	Gray Brown Fine to Coarse Sand/Fine to Medium Gravel
		T07-11	3.1	0.0	Hand Auger	Boulder and Rock; Encountered Large Rock/Boulder
		T07-12	2.8	0.0	Hand Auger	Rock/Coarse Gravel; Encountered Large Rock/Boulder
		T07-13	2.0	0.2	Hand Auger	Fine to Medium Gravel/Brown Fine to Medium Sand
		T07-14	1.4	6.2	Hand Auger	Gray Silt/Clay/Fine to Medium Gravel with Strong Odor
		T07-15	NA	NA	NA	Top of Bank Erosion Control Matting

See Note on Page 6.

Table E — Plainwell TCRA Area — Bathymetric Transects Collected in July 2009 and Surface Sediment Descriptions

Date	Transect	Station	Water Depth (ft)	Probe Depth (ft)	Method	Description
7/15/2009 (Cont.)	T06	T06-01	NA	NA	NA	Out of Water - 10 ft, Heavy Vegetation
		T06-02	NA	NA	NA	River Run Rock
		T06-03	1.5	0.0	Hand Auger	River Run Rock
		T06-04	4.5	0.4	Hand Auger	Brown Silty Clay/Trace Fine to Medium Sand/Fine to Medium Gravel
		T06-05	2.2	1.4	Hand Auger	Gray Black Silty Clay/Trace Fine to Medium Sand/Fine to Medium Gravel
		T06-06	2.1	1.4	Hand Auger	Gray Black Silty Clay/Trace Fine to Medium Sand
		T06-07	2.2	1.2	Hand Auger	Gray Black Silty Clay/Trace Fine to Medium Sand
		T06-08	2.8	0.2	Hand Auger	Brown Silty Sand/Fine to Medium Sand/Fine to Medium Gravel
		T06-09	2.8	0.2	Hand Auger	Brown to Black Silty Clay/Fine to Medium Sand/Fine to Medium Gravel
		T06-10	1.6	0.8	Hand Auger	Brown to Black Silty Clay
		T06-11	1.2	1.6	Hand Auger	Brown to Black Silty Clay with Trace Organics, Leaves, Twigs
		T06-12	3.3	0.0	Hand Auger	Hard Rock Bottom
		T06-13	3.1	0.3	Hand Auger	Brown Fine to Medium Gravel/Trace Fine Sand/Trace Silt/Calcareous Broken Rock Fragments
		T06-14	2.9	0.3	Hand Auger	Gray Brown Fine to Medium Sand/Fine to Medium Gravel/Trace Silt
		T06-15	NA	NA	NA	Top of Bank - 2 ft from Edge of Water
	T05	T05-01	0.0	NA	NA	Steep Bank High Vegetation
		T05-02	0.0	2.1	NA	5-10 feet From Edge of Water/Not Part of Removal Area
		T05-03	0.2	3.3	Hand with double nitrile	Gray Brown Silty Clay/Trace Organic Roots
		T05-04	1.9	1.6	Hand Auger	Gray Black Silty Clay
		T05-05	3.5	0.3	Hand Auger	Gray Black Silty Clay/Fine to Medium Gravel
		T05-06	4.3	0.1	Hand Auger	Hard Rock Bottom/No Recovery for Sample
		T05-07	5.2	0.1	Hand Auger	Hard Rock Bottom/No Recovery for Sample
		T05-08	4.2	0.1	Hand Auger	Hard Rock Bottom/No Recovery for Sample
		T05-09	4.1	0.0	Hand Auger	Hard Rock Bottom/No Recovery for Sample
		T05-10	4.3	0.0	Hand Auger	Hard Rock Bottom/No Recovery for Sample
		T05-11	4.1	0.0	Hand Auger	Hard Rock Bottom/No Recovery for Sample
		T05-12	4.2	0.0	Hand Auger	Hard Rock Bottom/No Recovery for Sample
		T05-13	3.2	0.6	Hand Auger	Fine to Medium Gravel/Medium to Coarse Sand
		T05-14	2.1	2.0	Hand Auger	Fine to Medium Gravel/Fine to Coarse Sand
		T05-15	0.0	-	Hand Auger	Top of Bank, 3 feet from Edge of Water

See Note on Page 6.

Table E — Plainwell TCRA Area — Bathymetric Transects Collected in July 2009 and Surface Sediment Descriptions

Date	Transect	Station	Water Depth (ft)	Probe Depth (ft)	Method	Description
7/15/2009 (Cont.)	T04	T04-01	NA	NA	NA	Top of Bank, Above River Run Rock, High Vegetation
		T04-02	NA	NA	NA	River Run Rock
		T04-03	NA	4.1	NA	3 feet from Edge of Water/Not Part of Removal Area
		T04-04	1.6	2.2	Hand with double nitrile	Gray Brown Silty Clay/Trace Fine Gravel
		T04-05	3.4	0.6	Hand Auger	Gray Brown Silty Clay/Trace Fine Gravel
		T04-06	4.1	0.8	Hand Auger	Gray Brown Silty Clay
		T04-07	5.3	0.7	Hand Auger	Gray Brow Silty Clay/Trace Fine Gravel
		T04-08	6.5	0.2	Hand Auger	Medium to Coarse Sand Over Hard Rock Bottom, No Recovery for Sample
		T04-09	4.4	1.8	Hand Auger	Gray Brown Silty Clay
		T04-10	4.7	2.4	Hand Auger	Gray Brown Silty Clay
		T04-11	5.2	3.0	Hand Auger	Gray Brown Silty Clay
		T04-12	5.1	2.7	Hand Auger	Gray Brown Silty Clay
		T04-13	1.8	5.0	Hand Auger	Gray Brown Silty Clay
		T04-14	NA	NA	NA	Top of Bank, 5 feet from Edge of Water into Restoration Material
		T04-15	NA	NA	NA	Top of Bank, 10 feet from Edge of Water into Restoration Material
7/16/2009	T03	T03-01	NA	NA	NA	Restoration Materials, Heavy Vegetation, 6 feet, River Run Rock
		T03-02	NA	NA	NA	River Run Rock, Restoration Materials, ~10 feet from Edge of Water
		T03-03	1.4	NA	NA	River Run Rock, Restoration Materials
		T03-04	7.0	0.6	Hand Auger	Edge of River Run Rock, Restoration, Gray Brown Silty Clay, Fine to Medium Sand, Fine to Medium Gravel
		T03-05	7.4	2.6	Hand Auger	Gray Black, Silty Clay, Fine to Coarse Sand, Fine to Medium Gravel
		T03-06	7.0	0.6	Hand Auger	Medium to Coarse Sand, Trace Fine Sand, Fine to Medium Gravel, Little Recovery
		T03-07	6.8	0.3	Hand Auger	Fine to Medium Gravel, Fine to Coarse Sand, Trace Silty Clay
		T03-08	6.5	0.4	Hand Auger	Gray Brown Silty Clay, Trace Fine to Medium Sand, Trace Fine Gravel
		T03-09	6.0	1.0	Hand Auger	Brown Fine to Medium Gravel, Trace Fine to Coarse Sand
		T03-10	5.8	0.3	Hand Auger	Fine to Medium Gravel, Gray Brown Silty Clay, Trace Fine Sand
		T03-11	5.1	0.2	Hand Auger	Fine to Medium Gravel, Brown Fine to Medium Sand, Trace Calcareous Brown Rock Fragments
		T03-12	4.7	1.0	Hand Auger	Gray Brown Fine to Coarse Sand, Fine Gravel, Trace Organics - Dead Leaves, Stems, Wood

See Note on Page 6.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Monthly Report #29, July 2009

Table E — Plainwell TCRA Area — Bathymetric Transects Collected in July 2009 and Surface Sediment Descriptions

Date	Transect	Station	Water Depth (ft)	Probe Depth (ft)	Method	Description
7/16/2009 (Cont.)	T03 (Cont.)	T03-13	3.0	0.9	Hand Auger	Gray Black Silty Clay
		T03-14	NA	NA	NA	Top of Bank, Restoration Material, Edge of Water ~2 feet
		T03-15	NA	NA	NA	Top of Bank, Restoration Material, Edge of Water ~2 feet
	T02	T02-01	NA	NA	NA	Top of Bank, ~2 feet above River Run Rock
		T02-02	NA	NA	NA	Edge of Water, River Run Rock, Restoration Materials
		T02-03	4.3	NA	NA	River Run Rock, Restoration Materials
		T02-04	4.0	0.9	Hand Auger	Bottom Edge of Prism, Fine to Medium Gravel, Gray Black Silt, Clay, Trace Fine to Medium Sand
		T02-05	0.0	3.9	Hand with double nitrile	Top of Prism, Gray Brown Silty Clay, Fine to Medium Sand
		T02-06	0.1	3.5	Hand with double nitrile	Top of Prism, Gray Brown Silty Clay, Fine to Medium Sand
		T02-07	2.3	0.7	Hand with double nitrile	Top of Prism, Gray Brown Silty Clay, Fine to Medium Sand
		T02-08	2.1	1.7	Hand Auger	Top of Prism, Gray Brown Silty Clay, Fine to Medium Sand
		T02-09	2.2	1.7	Hand Auger	Top of Prism, Gray Brown Silty Clay, Fine to Medium Sand
		T02-10	3.1	0.9	Hand Auger	Top of Prism, Gray Brown Silty Clay, Fine to Medium Sand
		T02-11	2.9	1.1	Hand Auger	Within 40 feet of Removal Area, Gray Brown Silty, Gray Brown Silty Clay, Fine to Medium Sand
		T02-12	5.7	0.0	Hand Auger	Hard Rock Bottom, No Recovery For Sample
		T02-13	5.8	0.1	Hand Auger	Hard Rock Bottom, No Recovery For Sample
		T02-14	3.2	1.8	Hand Auger	Gray Brown Silty Clay, Trace Find Sand
		T02-15	1.0	4.2	Hand Auger	Gray Brown Silty Clay, Trace Fine Sand
	T01	T01-00	NA	NA	NA	River Run Rock
		T01-10	2.2	NA	NA	River Run Rock, Restoration Materials
		T01-20	3.0	NA	NA	River Run Rock, Restoration Materials
		T01-30	3.1	0.2	Hand Auger	Gray Brown Silty Clay, Trace Fine Gravel
		T01-40	1.3	2.0	Hand Auger	Gray Brown Silty Clay, Trace Fine Gravel
		T01-50	0.6	2.8	Hand with double nitrile	Gray Brown Silty Clay, Trace Medium Sand
		T01-60	2.0	1.7	Hand Auger	Gray Brown Silty Clay, Trace Coarse Sand, Fine Gravel
		T01-70	2.0	1.9	Hand Auger	Gray Brown, Silty Clay, Trace Coarse Sand, Fine Gravel
		T01-80	1.0	3.0	Hand Auger	Gray Brown Silty Clay, Trace Fine to Medium Sand
		T01-90	0.8	3.0	Hand Auger	Gray Brown Silty Clay, Trace Fine to Medium Sand

See Note on Page 6.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Monthly Report #29, July 2009

Table E — Plainwell TCRA Area — Bathymetric Transects Collected in July 2009 and Surface Sediment Descriptions

Date	Transect	Station	Water Depth (ft)	Probe Depth (ft)	Method	Description
7/16/2009 (Cont.)	T01 (Cont.)	T01-100	1.0	3.0	Hand Auger	Gray Brown Silty Clay, Trace Fine to Medium Sand
		T01-110	3.0	1.2	Hand Auger	Gray Brown Silty Clay, Trace Fine to Medium Sand, Gravel
		T01-120	3.0	1.0	Hand Auger	Gray Brown Silty Clay, Trace Fine to Medium Sand, Gravel
		T01-130	2.9	1.6	Hand Auger	Gray Brown Silty Clay, Trace Fine to Medium Sand, Gravel
		T01-140	1.7	3.0	Hand Auger	Gray Brown Silty Clay, Trace Fine to Medium Sand, Trace Fine Gravel
		T01-150	1.8	2.6	Hand Auger	Gray Brown Silty Clay, Trace Fine to Medium Sand
		T01-160	1.8	2.6	Hand Auger	Gray Brown Silty Clay, Trace Fine to Medium Sand
		T01-170	5.6	0.0	Hand Auger	Hard Rock Bottom, No Recovery For Sample
		T01-180	5.0	0.7	Hand Auger	Brown Fine to Medium Sand, Fine Gravel
		T01-190	1.4	2.1	Hand Auger	Gray Brown Silty Clay
		T01-198	NA	NA	NA	Top of Bank, 3 feet from Edge of Water, Restoration Rock

Note:
NA - Not applicable.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Monthly Report #29, July 2009

Table F — Lake Allegan (Area 6) — Cores Released for PCB Analysis in July 2009

Date Collected	Location	Interval (cm)	Sample ID	Released or On Hold?
5/13/2009	ALG-10	0-1	K16845	Released 7/24
		1-2	K16846	Released 7/24
		2-3	K16847	Released 7/24
		3-4	K16848	Released 7/24
		4-5	K16849	Released 7/24
		5-6	K16850	Released 7/24
		6-7	K16851	Released 7/24
		7-8	K16852	Released 7/24
		8-9	K16853	Released 7/24
		9-10	K16854	Released 7/24
		10-12	K16855	Released 7/24
		12-14	K16856	Released 7/24
		14-16	K16857	Released 7/24
		16-18	K16858	Released 7/24
		18-20	K16859	Released 7/24
		20-25	K16860	Released 7/24
		25-30	K16861	Released 7/24
		30-35	K16862	Released 7/24
		35-40	K16863	Released 7/24
		34-40	K16864	Released 7/24
		40-45	K16865	Released 7/24
		45-50	K16866	Released 7/24
		50-55	K16867	Released 7/24
		55-60	K16868	Released 7/24
		55-60	K16869	Released 7/24
		60-65	K16870	Released 7/24
		65-70	K16871	Released 7/24
5/14/2009	ALG-5	0-1	K16965	On Hold
		1-2	K16966	On Hold
		2-3	K16967	On Hold
		3-4	K16968	On Hold
		3-4	K16969	On Hold
		4-5	K16970	On Hold
		5-6	K16971	On Hold
		6-7	K16972	On Hold
		7-8	K16973	On Hold
		8-9	K16974	On Hold
		9-10	K16975	On Hold
		10-12	K16976	On Hold
		12-14	K16977	On Hold
		14-16	K16978	On Hold
		16-18	K16979	On Hold
		16-18	K16980	On Hold
		18-20	K16981	On Hold
		20-25	K16982	On Hold
		25-30	K16983	On Hold

See Note on Page 3.

Table F — Lake Allegan (Area 6) — Cores Released for PCB Analysis in July 2009

Date Collected	Location	Interval (cm)	Sample ID	Released or On Hold?
5/14/2009 (Cont.)	ALG-5 (Cont.)	30-35	K16984	On Hold
		35-40	K16985	On Hold
		40-45	K16986	On Hold
		45-50	K16987	On Hold
		50-55	K16988	On Hold
		60-65	K16989	On Hold
5/14/2009	ALG-6	0-1	K16990	On Hold
		1-2	K16991	On Hold
		2-3	K16992	On Hold
		3-4	K16993	On Hold
		4-5	K16994	On Hold
		4-5	K16995	On Hold
		5-6	K16996	On Hold
		6-7	K16997	On Hold
		7-8	K16998	On Hold
		8-9	K16999	On Hold
		9-10	K17000	On Hold
		9-10	K17001	On Hold
		10-12	K17002	On Hold
		12-14	K17003	On Hold
		14-16	K17004	On Hold
		16-18	K17005	On Hold
		18-20	K17006	On Hold
		20-25	K17007	On Hold
		25-30	K17008	On Hold
		30-35	K17009	On Hold
		35-40	K17010	On Hold
		40-45	K17011	On Hold
		45-50	K17012	On Hold
		50-55	K17013	On Hold
		55-60	K17014	On Hold
		60-65	K17015	On Hold
5/14/2009	ALG-7	0-1	K16878	On Hold
		1-2	K16879	On Hold
		2-3	K16880	On Hold
		2-3	K16881	On Hold
		3-4	K16882	On Hold
		4-5	K16883	On Hold
		5-6	K16884	On Hold
		6-7	K16885	On Hold
		7-8	K16886	On Hold
		8-9	K16887	On Hold
		9-10	K16888	On Hold
		10-12	K16889	On Hold
		12-14	K16890	On Hold
		14-16	K16891	On Hold

See Note on Page 3.

Table F — Lake Allegan (Area 6) — Cores Released for PCB Analysis in July 2009

Date Collected	Location	Interval (cm)	Sample ID	Released or On Hold?
5/14/2009 (Cont.)	ALG-7 (Cont.)	14-16	K16892	On Hold
		16-18	K16893	On Hold
		18-20	K16894	On Hold
		20-25	K16895	On Hold
		25-30	K16896	On Hold
		30-35	K16897	On Hold
		35-40	K16898	On Hold
		40-45	K16899	On Hold
		45-50	K16900	On Hold
		50-55	K16901	On Hold
		55-60	K16902	On Hold
		60-65	K16903	On Hold
		65-70	K16904	On Hold
5/14/2009	ALG-8	0-1	K16908	Released 7/24
		1-2	K16909	Released 7/24
		2-3	K16910	Released 7/24
		3-4	K16911	Released 7/24
		4-5	K16912	Released 7/24
		5-6	K16913	Released 7/24
		5-6	K16914	Released 7/24
		6-7	K16915	Released 7/24
		7-8	K16916	Released 7/24
		8-9	K16917	Released 7/24
		9-10	K16918	Released 7/24
		10-12	K16919	Released 7/24
		12-14	K16920	Released 7/24
		12-14	K16921	Released 7/24
		14-16	K16922	Released 7/24
		16-18	K16923	Released 7/24
		18-20	K16924	Released 7/24
		20-25	K16925	Released 7/24
		25-30	K16926	Released 7/24
		30-35	K16927	Released 7/24
		35-40	K16928	Released 7/24
		40-45	K16929	Released 7/24
		45-50	K16930	Released 7/24
		50-55	K16931	Released 7/24
		55-56	K16932	Released 7/24

Note:

Samples were submitted to TestAmerica for PCB and percent solids analysis.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Monthly Report #29, July 2009

Table G — Lake Allegan (Area 6) — Radionuclide Data Received in July 2009

Date Collected	Location	Interval (cm)	Sample ID	SDG
5/13/2009	ALG-10	45-50	K16866	Pb0174
		50-55	K16867	Pb0174
		55-60	K16868	Pb0174
		60-65	K16870	Pb0174
		65-70	K16871	Pb0174
5/14/2009	ALG-5	0-1	K16965	Pb0179
		1-2	K16966	Pb0179
		2-3	K16967	Pb0179
		3-4	K16968	Pb0179
		4-5	K16970	Pb0179
		5-6	K16971	Pb0179
		6-7	K16972	Pb0179
		7-8	K16973	NR
		8-9	K16974	NR
		9-10	K16975	NR
		10-12	K16976	NR
		12-14	K16977	NR
		14-16	K16978	NR
		16-18	K16979	NR
		18-20	K16981	NR
		20-25	K16982	NR
		25-30	K16983	NR
		30-35	K16984	NR
		35-40	K16985	NR
		40-45	K16986	NR
		45-50	K16987	NR
		50-55	K16988	NR
		60-65	K16989	NR
5/14/2009	ALG-6	0-1	K16990	NR
		1-2	K16991	NR
		2-3	K16992	NR
		3-4	K16993	NR
		4-5	K16994	NR
		5-6	K16996	NR
		6-7	K16997	NR
		7-8	K16998	NR
		8-9	K16999	NR
		9-10	K17000	NR
		10-12	K17002	NR
		12-14	K17003	NR
		14-16	K17004	NR
		16-18	K17005	NR
		18-20	K17006	NR

See Notes on Page 3.

Table G — Lake Allegan (Area 6) — Radionuclide Data Received in July 2009

Date Collected	Location	Interval (cm)	Sample ID	SDG
5/14/2009 (Cont.)	ALG-6 (Cont.)	20-25	K17007	NR
		25-30	K17008	NR
		30-35	K17009	NR
		35-40	K17010	NR
		40-45	K17011	NR
		45-50	K17012	NR
		50-55	K17013	NR
		55-60	K17014	NR
		60-65	K17015	NR
5/14/2009	ALG-7	0-1	K16878	Pb0175
		1-2	K16879	Pb0175
		2-3	K16880	Pb0175
		3-4	K16882	Pb0175
		4-5	K16883	Pb0175
		5-6	K16884	Pb0175
		6-7	K16885	Pb0175
		7-8	K16886	Pb0175
		8-9	K16887	Pb0175
		9-10	K16888	Pb0175
		10-12	K16889	Pb0175
		12-14	K16890	Pb0175
		14-16	K16891	Pb0179
		16-18	K16893	Pb0179
		18-20	K16894	Pb0179
		20-25	K16895	Pb0179
		25-30	K16896	Pb0179
		30-35	K16897	Pb0179
		35-40	K16898	Pb0179
		40-45	K16899	Pb0179
		45-50	K16900	Pb0179
		50-55	K16901	Pb0179
		55-60	K16902	Pb0179
		60-65	K16903	Pb0179
		65-70	K16904	Pb0179
5/14/2009	ALG-8	0-1	K16908	Pb0174
		1-2	K16909	Pb0174
		2-3	K16910	Pb0174
		3-4	K16911	Pb0174
		4-5	K16912	Pb0174
		5-6	K16913	Pb0174
		6-7	K16915	Pb0174
		7-8	K16916	Pb0174
		8-9	K16917	Pb0174
		9-10	K16918	Pb0174
		10-12	K16919	Pb0174

See Notes on Page 3.

Table G — Lake Allegan (Area 6) — Radionuclide Data Received in July 2009

Date Collected	Location	Interval (cm)	Sample ID	SDG
5/14/2009 (Cont.)	ALG-8 (Cont.)	12-14	K16920	Pb0174
		14-16	K16922	Pb0174
		16-18	K16923	Pb0174
		18-20	K16924	Pb0174
		20-25	K16925	Pb0175
		25-30	K16926	Pb0175
		30-35	K16927	Pb0175
		35-40	K16928	Pb0175
		40-45	K16929	Pb0175
		45-50	K16930	Pb0175
		50-55	K16931	Pb0175
		55-60	K16932	Pb0175

Notes:
All samples were submitted to Mass Spec Services for Pb-210 and Cs-137 radionuclide analysis.
NR - Not received as of July 31, 2009.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Monthly Report #29, July 2009

Table H — Plainwell TCRA Area — Groundwater and Surface Water Sample Data Received in July 2009

Date Sampled	Sample ID	Location ID	SDG
6/29/2009	TS40017	MW-12	KAL462
	TS40018	MW-14	KAL462
	TS40019	MW-11	KAL462
	TS31003	SG-5	KAL462
6/30/2009	TS40020 [TS40021]	MW-13	KAL462 [KAL462]
	TS40022	MW-15	KAL462
	TS40023	MW-10	KAL462
	TS40024[1]	MW-5	KAL462
	TS40025	MW-4	KAL462
7/1/2009	TS40026	MW-8	KAL462
	TS40027	MW-3	KAL462
	TS40028	MW-7	KAL462
	TS40029[1]	MW-2	KAL462
	TS40030 [TS40031]	MW-6	KAL462 [KAL462]
	TS40032	MW-1	KAL462
7/2/2009	TS40033	MW-9	KAL462
	TS31004[1] [TS31005]	SG-5	KAL462 [KAL462]

Notes:

All samples sent to TestAmerica Laboratories, Inc. for the following analyses: PCBs, total organic carbon (TOC), total dissolved solids (TDS), total suspended solids (TSS), chloride, sulfate and alkalinity, and total metals (i.e., sodium, calcium, potassium, magnesium).

[1]MS/MSD performed on this sample.

Duplicate samples are in brackets.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Monthly Report #29, July 2009

Table I — Crown Vantage Landfill — Sediment and Soil Sample Data Received in July 2009

Date Processed	Location	Sample ID	SDG
7/8/2009	CVS-01	K26440	NR
		K26441	NR
		K26442	NR
	CVS-02	K26443	NR
		K26444	NR
		K26445	NR
		K26446	NR
	CVS-03	K26447	NR
		K26448	NR
		K26449	NR
		K26450	NR
	CVS-04	K26451 [K26452]	NR [NR]
		K26453[1]	NR
	CVS-05	K26454	NR
		K26455	NR
	CVS-06	K26456	NR
		K26457	NR
		K26458	NR
		K26459	NR
	CVS-07	K26460	NR
		K26461	NR
		K26462	NR
7/9/2009	CVS-08	K26463	NR
		K26464	NR
		K26465	NR
		K26466	NR
	CVS-09	K26467	NR
		K26468	NR
		K26469	NR
	CVS-10	K26470	NR
		K26471 [K26472]	NR [NR]
		K26473[1]	NR
	FF-28	K56299	NR
		K56300 [K56301]	NR [NR]
		K56302[1]	KAL466
		K56303	KAL466
	CVT-06-1	K56304	KAL463
		K56305	KAL463
		K56306	KAL463
		K56307	KAL463
		K56308	KAL463
	CVT-05-2	K56309	KAL463
		K56310	KAL463
		K56311	KAL463
		K56312	KAL463
		K56313	KAL463

See Notes on Page 2.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Monthly Report #29, July 2009

Table I — Crown Vantage Landfill — Sediment and Soil Sample Data Received in July 2009

Date Processed	Location	Sample ID	SDG
7/9/2009 (Cont.)	CVT-07-1	K56314	KAL463
		K56315	KAL463
		K56316	KAL463
		K56317	KAL463
		K56318	KAL463
		K56319	KAL463
	CVT-08-5	K56320	KAL463
		K56321	KAL463
		K56322	KAL463
		K56323 [K56324]	NR [NR]
		K56325[1]	KAL463
		K56326	NR
	CVT-04-4	K56327	KAL466
		K56328	KAL466
		K56329	KAL466
		K56330	KAL466
		K56331	KAL466
	CVT-01-2	K56332	KAL466
		K56333	KAL466
		K56334	KAL466
		K56335	KAL466
		K56336	KAL466
		K56337	KAL466
		K56338	KAL466
	CVT-02-1	K56339	KAL466
		K56340	KAL466
		K56341	KAL466
		K56342	KAL466
		K56343	KAL466
	CVT-03-1	K56344	KAL466
		K56345	NR
		K56346 [K56347]	NR [NR]
		K56348[1]	NR

Notes:
NR - Not received as of July 31, 2009.
All samples analyzed for PCBs, TOC, and grain size.
[1]MS/MSD performed on this sample.
Duplicate samples are in brackets.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Monthly Report #29, July 2009

Table J — Results for Groundwater Samples Collected in Plainwell TCRA Area - Data Received in May 2009

Sample Name:		TS31000	TS31001	TS40000	TS40001	TS40002	TS40004	TS40005	TS40006	TS40007	TS40008	TS40009	TS40010
Date Collected:		04/13/09	04/17/09	04/13/09	04/13/09	04/14/09	04/14/09	04/14/09	04/14/09	04/15/09	04/15/09	04/15/09	04/15/09
Location ID:	Units	SG-5	SG-5	MW-12	MW-14	MW-11	MW-13	MW-10	MW-15	MW-4	MW-5	MW-8	MW-3
PCBs													
Aroclor-1016	ug/L	0.048 U	0.048 U [0.048 U]	0.049 U	0.047 U	0.048 U [0.049 U]	0.048 U	0.05 U	0.047 U	0.049 U	0.047 U	0.049 U	0.048 U
Aroclor-1221	ug/L	0.048 U	0.048 U [0.048 U]	0.049 U	0.047 U	0.048 U [0.049 U]	0.048 U	0.05 U	0.047 U	0.049 U	0.047 U	0.049 U	0.048 U
Aroclor-1232	ug/L	0.048 U	0.048 U [0.048 U]	0.049 U	0.047 U	0.048 U [0.049 U]	0.048 U	0.05 U	0.047 U	0.049 U	0.047 U	0.049 U	0.048 U
Aroclor-1242	ug/L	0.048 U	0.027 J [0.048 U]	0.049 U	0.047 U	0.048 U [0.049 U]	0.048 U	0.05 U	0.047 U	0.049 U	0.047 U	0.049 U	0.048 U
Aroclor-1248	ug/L	0.048 U	0.048 U [0.048 U]	0.049 U	0.047 U	0.048 U [0.049 U]	0.048 U	0.05 U	0.047 U	0.049 U	0.047 U	0.049 U	0.048 U
Aroclor-1254	ug/L	0.048 U	0.048 U [0.048 U]	0.049 U	0.047 U	0.048 U [0.049 U]	0.048 U	0.05 U	0.047 U	0.049 U	0.047 U	0.049 U	0.048 U
Aroclor-1260	ug/L	0.048 U	0.048 U [0.048 U]	0.049 U	0.047 U	0.048 U [0.049 U]	0.048 U	0.05 U	0.047 U	0.049 U	0.047 U	0.049 U	0.048 U
Total PCB	ug/L	0.048 U	0.027 J [0.048 U]	0.049 U	0.047 U	0.048 U [0.049 U]	0.048 U	0.05 U	0.047 U	0.049 U	0.047 U	0.049 U	0.048 U
Inorganics													
Calcium	ug/L	73300	75500 [74300]	152000	111000	110000 [109000]	92200	198000	92200	115000	141000	105000	121000
Magnesium	ug/L	19600	20600 [20300]	27700	23800	27300 [27300]	21700	29500	25700	27700	32100	27100	29500
Potassium	ug/L	2090 B	2040 B [2050 B]	3450 B	699 B	1930 B [1760 B]	1600 B	1120 B	1540 B	2120 B	2810 B	2100 B	1880 B
Sodium	ug/L	20400	22400 [22200]	11600	27000	59700 [59200]	69500	51100	42100	73400	53800	80300	74900
Miscellaneous													
Alkalinity	mg/L	200	210 [210]	320	210	310 [300]	280	420	280	340	310	300	320
Chloride	mg/L	39	43 [43]	28	42	100 [98]	120	89	43	130	80	160	120
Sulfate	mg/L	32	34 B [34]	130	150	64 [66]	29	160	63	43	130	42	82
Total Dissolved Solids	mg/L	361	371 [370]	657	553	619 [610]	568	918	495	655	746	625	665
Total Organic Carbon	mg/L	7.9	7.1 [7.5]	20.6	5.2	4.5 [4.5]	2.5	16.2	3.1	4.8	6.7	2.6	3.7
Total Suspended Solids	mg/L	7.6	7.7 [8]	0.6	17	13.6 [14.2]	13.3	25.4	10.1	11.7	8.9	9.1	21.3

See Notes on Page 2.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Monthly Report #28, June 2009

Table J — Results for Groundwater Samples Collected in Plainwell TCRA Area - Data Received in May 2009

Sample Name: Date Collected: Location ID:	Units	TS40011 04/15/09 MW-7	TS40012 04/16/09 MW-2	TS40013 04/16/09 MW-6	TS40014 04/16/09 MW-1	TS40016 04/17/09 MW-9
PCBs						
Aroclor-1016	ug/L	0.049 U	0.048 U	0.047 U	0.048 U [0.048 U]	0.048 U
Aroclor-1221	ug/L	0.049 U	0.048 U	0.047 U	0.048 U [0.048 U]	0.048 U
Aroclor-1232	ug/L	0.049 U	0.048 U	0.047 U	0.048 U [0.048 U]	0.048 U
Aroclor-1242	ug/L	0.049 U	0.048 U	0.047 U	0.048 U [0.048 U]	0.048 U
Aroclor-1248	ug/L	0.049 U	0.048 U	0.047 U	0.048 U [0.048 U]	0.048 U
Aroclor-1254	ug/L	0.049 U	0.048 U	0.047 U	0.048 U [0.048 U]	0.048 U
Aroclor-1260	ug/L	0.049 U	0.048 U	0.047 U	0.048 U [0.048 U]	0.048 U
Total PCB	ug/L	0.049 U	0.048 U	0.047 U	0.048 U [0.048 U]	0.048 U
Inorganics						
Calcium	ug/L	174000	142000	119000	121000 [129000]	92100
Magnesium	ug/L	28300	29300	27800	36300 [38600]	24600
Potassium	ug/L	2000 B	1700 B	1940 B	3100 B [3220 B]	2000 B
Sodium	ug/L	55200	53000	68400	30000 [31500]	70900
Miscellaneous						
Alkalinity	mg/L	360	350	311	320 [310]	250
Chloride	mg/L	110	93	110	44 [43]	140
Sulfate	mg/L	140	110	67	180 [180]	35
Total Dissolved Solids	mg/L	777	706	639	667 [691]	574
Total Organic Carbon	mg/L	6.9	6.1	4.6	7.4 [7.5]	2
Total Suspended Solids	mg/L	12.9	20.1	16.4	15.4 [14.5]	6.6

Notes:
Data received in May 2009.
Duplicate results are in brackets.
NA - not analyzed.
B - The reported value was obtained from a reading less than the contract required detection limit (CRDL) but greater than or equal to the instrument detection limit (IDL).
J - The compound was positively identified; however, the associated numerical value is an estimated concentration only.
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.